EAST HAVEN, CONNECTICUT

GARNISS POND DAM
CT-00114

NATIONAL DAM INSPECTION PROGRAM
CORPS OF ENGINEERS

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER CT 00114	2. GOVT ACCESSION NO. ADA143002	3. RECIPIENT'S CATALOG NUMBER
4. TITLE *(and Subtitle)* East Haven, Conn. Garniss Pond Dam NATIONAL PROGRAM FOR INSPECTION OF NON-FEDERAL DAMS		5. TYPE OF REPORT & PERIOD COVERED INSPECTION REPORT 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS DEPT. OF THE ARMY, CORPS OF ENGINEERS NEW ENGLAND DIVISION, NEDED 424 TRAPELO ROAD, WALTHAM, MA. 02254		12. REPORT DATE November1979 13. NUMBER OF PAGES 35
14. MONITORING AGENCY NAME & ADDRESS*(if different from Controlling Office)*		15. SECURITY CLASS. *(of this report)* UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

APPROVAL FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

18. SUPPLEMENTARY NOTES

Cover program reads: Phase I Inspection Report, National Dam Inspection Program; however, the official title of the program is: National Program for Inspection of Non-Federal Dams; use cover date for date of report.

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

DAMS, INSPECTION, DAM SAFETY,
East Haven, Conn.
Garniss Pond Dam

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The dam is an earthfill embankment approx. 600' intotal length. Graniss Street is located directly downstream. The height of the dam is taken from the outlet invert elevation to the crest elevation and is equal to 10± ft. The crest width varies from 10± ft. along most of the dam to 35± ft. at the spillway. The apillway is a 10± ft. wide channel at the left end of the dam. There is a concrete weir at the upstream end of the channel and another concrete weir with a 12 in. outlet valve at the downstream end.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

This letter is to confirm instructions from the Corps that the Graniss Pond Dam has been reclassified to low hazard, and also to present our findings to date. All further work on the project shall be terminated. The following work has been completed:

a. Data Collection

b. Preparation for and the actual field inspection including survey.

c. Partial preparation and plotting for drawings of the dam.

Description of Project

The dam is an earthfill embankment approximately 600' in total length. Graniss Street is located directly downstream. The height of the dam is taken from the outlet invert elevation to the crest elevation and is equal to 10± feet. The crest width varies from 10± feet along most of the dam to 35± feet at the spillway. The spillway is a 10± foot wide channel at the left end of the dam. There is a concrete weir at the upstream end of the channel and another concrete weir with a 12 inch outlet valve at the downstream end. A stone wall is located along the right side of the channel. Water from the 12 inch outlet flows in a small open channel to a 15 inch RCP under Grannis Street.

The owner is the YMCA at 52 Howe Street, East Haven, Connecticut. The purpose of the dam is to provide a recreational pond for three camps located at the pond. The operator at the dam is Walter Allen, 4 Grannis Street, East Haven. There are no plans for the dam. According to the operator, the dam was built and owned by a Mr. Hubinger who donated the dam and property to the YMCA.

The dam impounds less than 1000 acre feet of water and the height of the dam is 10± feet taken from the outlet invert to the top of the dam. According to recommended guidelines, the dam is classified as small in size. The dam has a low hazard classification based upon the impoundment capacity and discussions with the Corps which indicates that a breach of the dam would probably not cause loss of life or extensive property damage.

The findings of our visual inspection revealed that the condition of the dam is poor. The upstream weir is deteriorated and has fallen to a state of disrepair (Photo Page 3). The downstream weir has several areas of seepage at the downstream side (photo 5 and 6). The crest and slopes are overgrown with trees and brush (photos 1 and 2).

We are enclosing the following items:

1. Plans from survey done by Storch Engineers, 161 Main Street, Wethersfield, Connecticut
2. A map showing location of dam
3. Selected photographs with descriptions
4. Cahn Engineers visual inspection checklist
5. Inventory sheets compiled by Cahn Engineers, Inc.
6. The inventory sheet from State Board for the Supervision of Dams.
7. The Corps' inventory sheet
8. Other photographs of dam
9. Plotting of survey done by Cahn Engineers, Inc.
10. Notes from field inspection

We wish to express our appreciation for the cooperation of your staff in this matter and further appreciate the opportunity to be of continued service to the Corps of Engineers.

If you have any questions, please feel free to contact us.

Very truly yours,

CAHN ENGINEERS, INC.

Peter M. Heynen, P.E.
Chief Geotechnical Engineer

PMH/na

(1

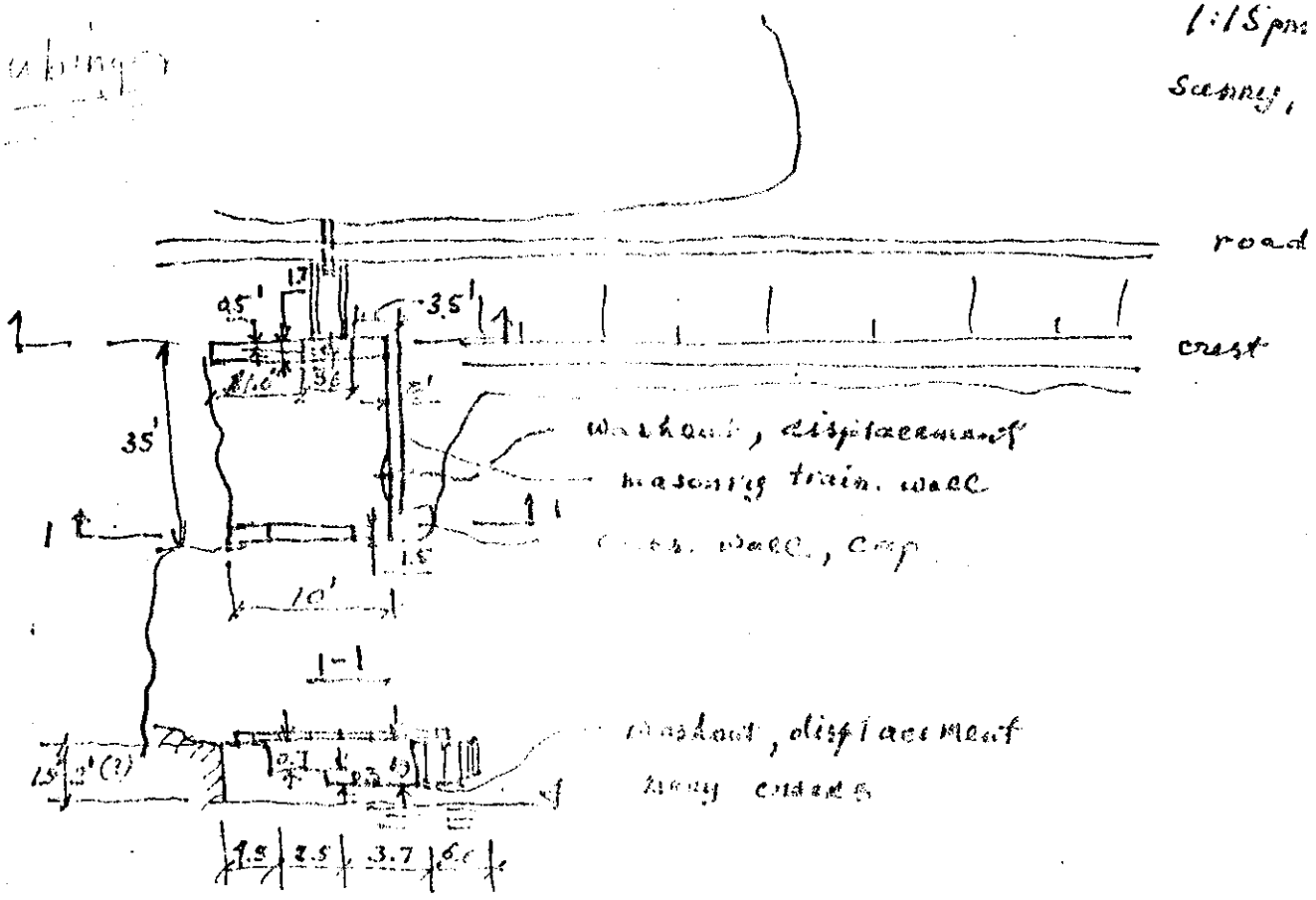
Culverts.

9/18/79

1:15 pm – 4:30

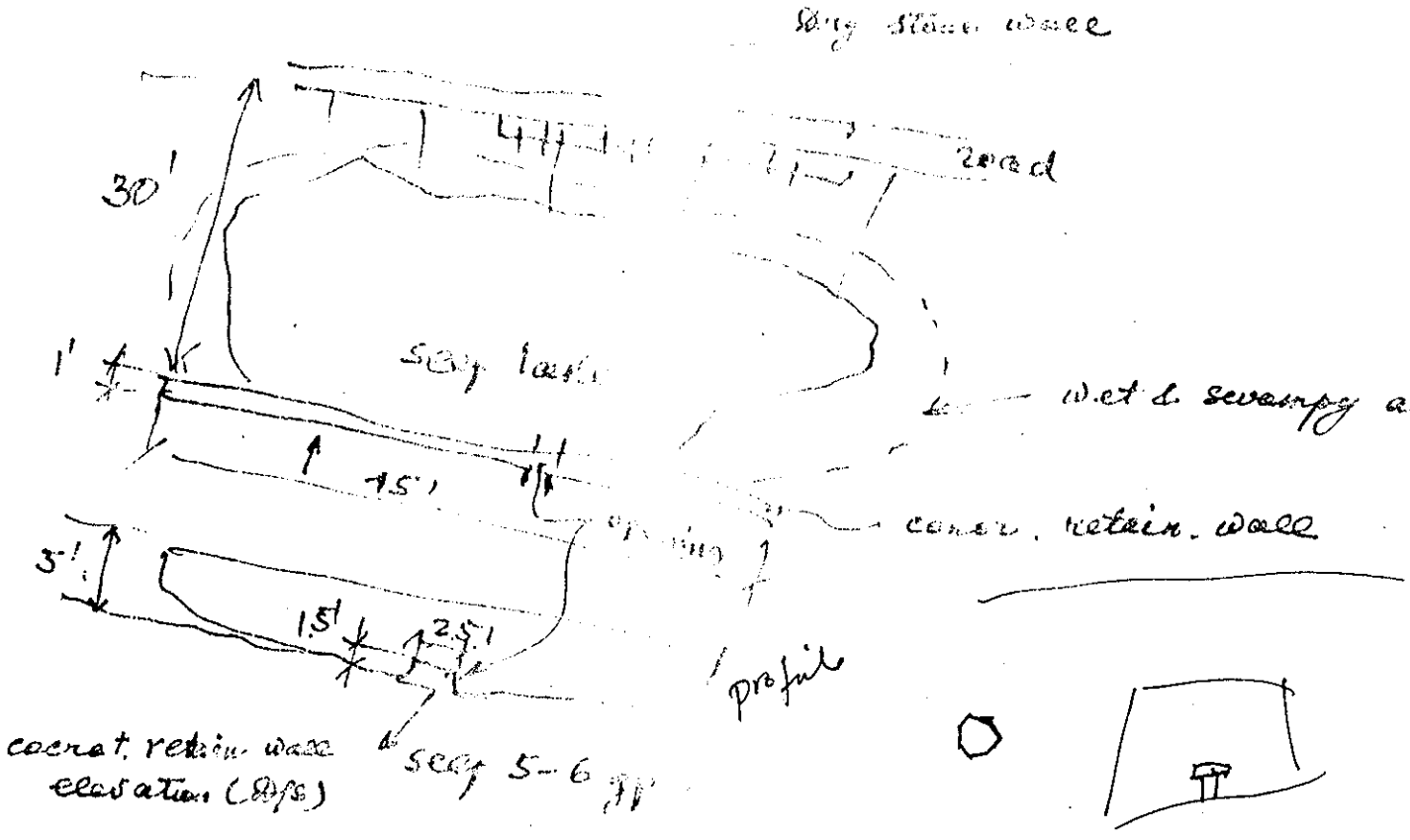
Sunny, 75°F

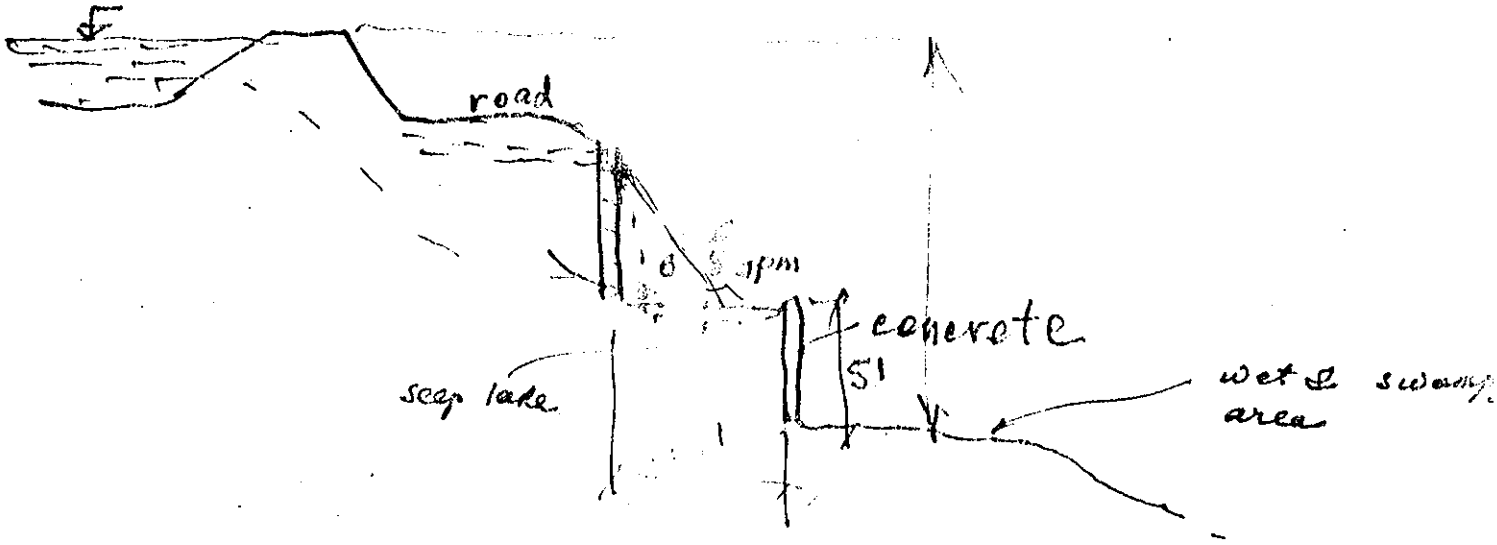
Harbinger



Drainist

(2)


30'
road
1'
seep lake
wet & swampy area
1.5'
3'
1.5'
2.5'
profile
concr. retain. wall
concrete retain. wall
elevation (S/S)
seep 5-6 ft


road
concrete
5'
seep lake
wet & swampy area

Grouss Pond Dam

Owner: YMCA - East Haven 865-3161

2) Operator: Walter Allen 467-0231

3) Operation facilities: 12" valve (low level) - operable - d/s side dam
6" runoff (top of dam)
no maintenance for valve
15" R.C.P. under Gronss Street
Gates opened in anticipation of storms but not readily available in high water.
Valve kept closed except during spring thaw when its opened for 1 day max.
operator at dam during storms - calls YMCA if a problem - no procedure for emergencies
No lake level readings
No seepage or flow monitoring

4) No maintenance procedures

5) 1st owner - Hubinger
3 camps at pond

6) Slots for flashboards but not used

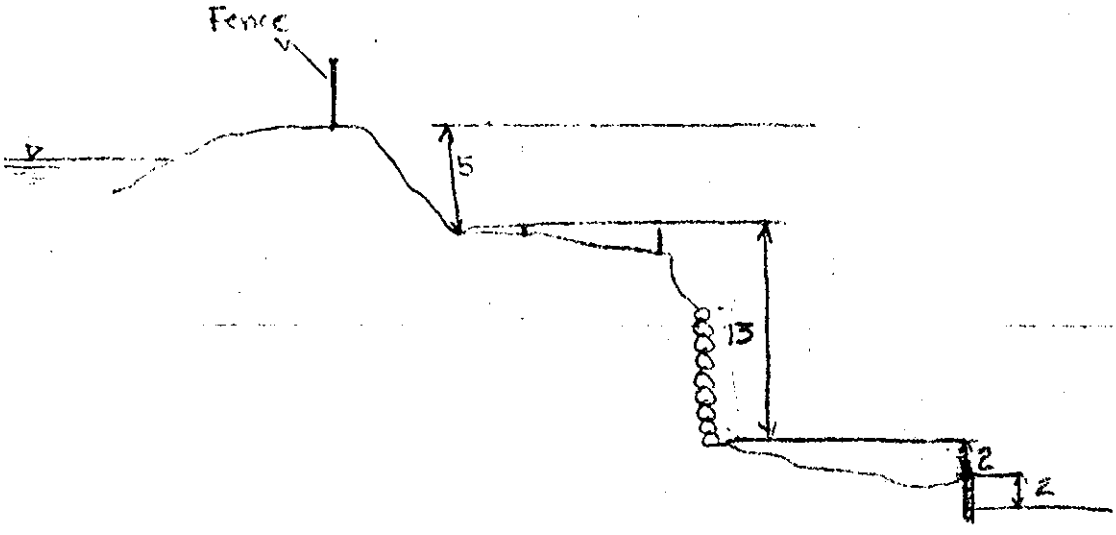
7) Dam not patrolled

8) No maintenance for dam

9)

Grannis Pond Dam

1. Height of dam -- 22' total [illegible]



Maximum depth u/s = 15' @ center of pond

Proposed by State Engr.

Riprap u/s of spillway

New 45" RCP under Grannis St.

Widen Grannis St fill

Installation of 24"-30" RCP w/ splash pad

Impact area 400 sq. ft. d/s

CT-1.4

1

No. EHV - 3

WATER RESOURCES COMMISSION
SUPERVISION OF DAMS
INVENTORY DATA

LONG 72-51.3

LAT 41-18.2

Inventoried By WPS

Date 27 MAY 1964

Name of Dam or Pond GRANISS POND (Lake Hubbinger)

Code No. EH 2.7 FM 2.5 U 0.1

Nearest Street Location GRANISS STREET

Town EAST HAVEN

U.S.G.S. Quad. BRANFORD

Name of Stream UNNAMED TR FARM RIVER

Owner CAMP HUBINGER - YMCA

Address 52 HOWE EAST HAVEN

OK 6/73

865-3161

They're calling back

Pond Used For RECREATION

DA 0.165 SM

Dimensions of Pond: Width 600 FEET Length 1400 FEET Area 20 ACRES

Total Length of Dam 600 FEET Length of Spillway 4 FEET

Location of Spillway EAST END OF DAM

Height of Pond Above Stream Bed 20 FEET, SLOPES RAPIDLY

1900?

Height of Embankment Above Spillway 4 FEET

Type of Spillway Construction CONCRETE

Type of Dike Construction EARTH

Downstream Conditions NORTH HIGH STREET

Summary of File Data

Remarks TREES GROWING ON DIKE

Would Failure Cause Damage? YES Class B

INVENTORY OF DAMS IN THE UNITED STATES

24 JAN 79

ATE	IDENTITY NUMBER	DIVISION	STATE	COUNTY	CONGR DIST.	STATE	COUNTY	CONGR DIST.	NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	REPORT DATE DAY	MO	YR
T	118	NED	CT	009	03				GRANISS POND DAM	4118.2	7251.3	12	DEC	73

POPULAR NAME	NAME OF IMPOUNDMENT
LAKE HURINGER DAM	GRANISS POND

REGION	BASIN	RIVER OR STREAM	NEAREST DOWNSTREAM CITY-TOWN-VILLAGE	DIST FROM DAM (MI.)	POPULATION
01	07	TR-FARM RIVER	EAST HAVEN	2	25100

TYPE OF DAM	YEAR COMPLETED	PURPOSES	STRUCTURAL HEIGHT (FT.)	HYDRAULIC HEIGHT (FT.)	IMPOUNDING CAPACITIES MAXIMUM (ACRE-FT.)	IMPOUNDING CAPACITIES NORMAL (ACRE-FT.)	DIST	OWN	FED R	PRV/FED	SCS A	VER/DATE
PECR	1900	R	24	22	220	200	NED					

REMARKS
22-ESTIMATE

D/S HAS	SPILLWAY CREST LENGTH	SPILLWAY TYPE	SPILLWAY WIDTH (FT.)	MAXIMUM DISCHARGE (FT.)	VOLUME OF DAM (CY)	POWER CAPACITY INSTALLED (MW)	POWER CAPACITY PROPOSED (MW)	NAVIGATION LOCKS NO	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)
	600		4				0									

OWNER	ENGINEERING BY	CONSTRUCTION BY
YMCA		

REGULATORY AGENCY			
DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE

INSPECTION BY	INSPECTION DATE DAY	MO	YR	AUTHORITY FOR INSPECTION

REMARKS

Photo 1 - Crest of dam. Runoff pipe over crest in background.

Photo 2 - Downstream slope of dam. Runoff (6") in center and Graniss Street in foreground.

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Graniss Pond Dam TR - Farm River East Haven, Connecticut CE# 27 660 KD DATE 9/18/79 PAGE C-1
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	INSPECTION OF NON-FED. DAMS	

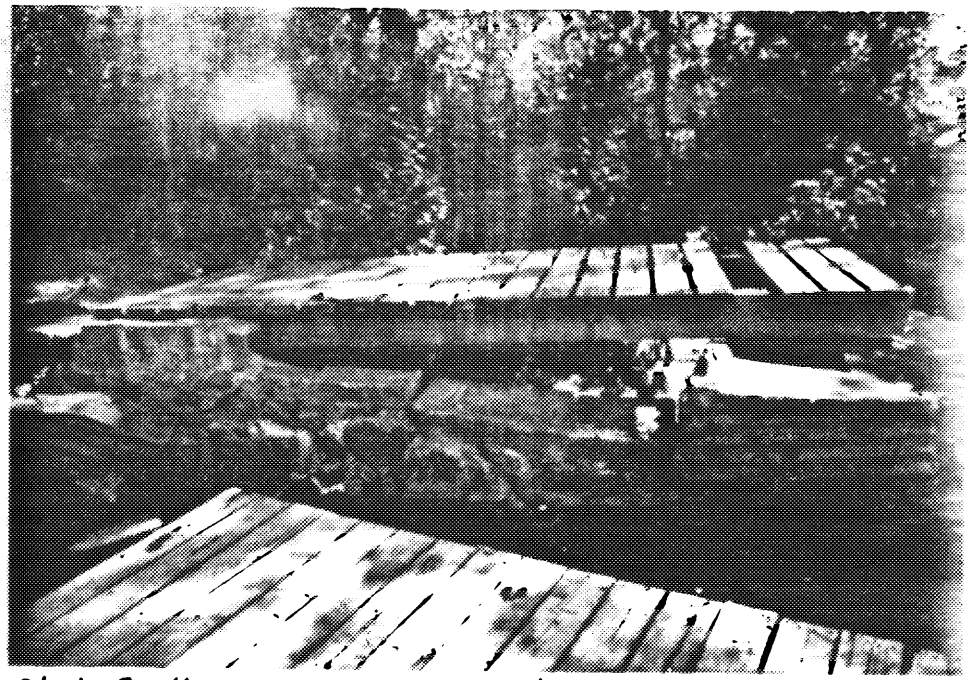


Photo 3 - Upstream weir and spillway channel. Downstream weir in background.

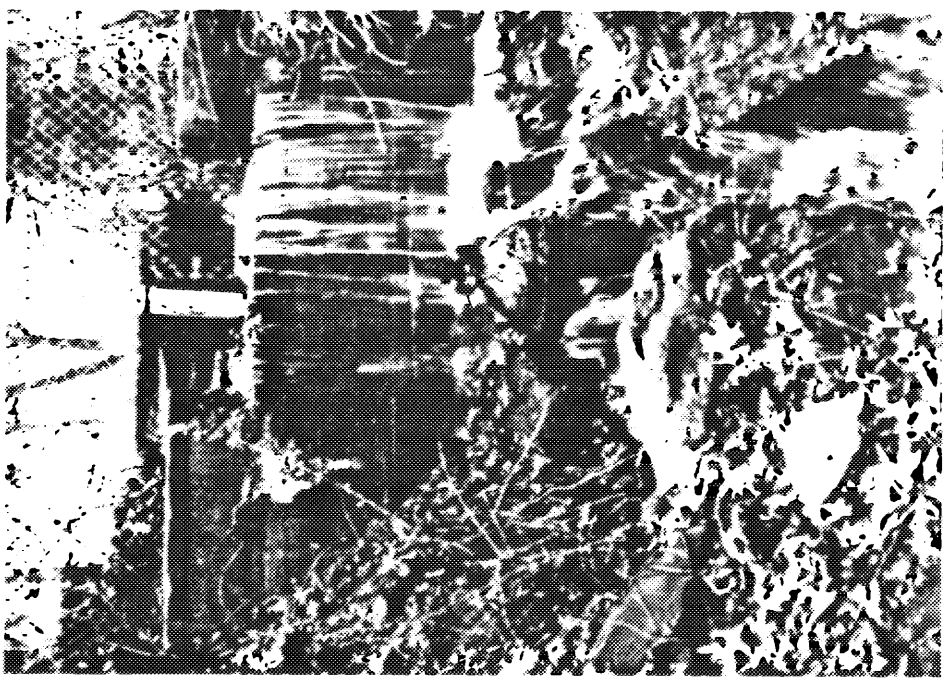


Photo 4 - Downstream weir, outlet valve and channel to 15" R.C.P. from downstream.

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Graniss Pond Dam TR-Farm River East Haven, Connecticut CE# 27 660 KD DATE 9/18/79 PAGE C-2
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	INSPECTION OF NON-FED. DAMS	

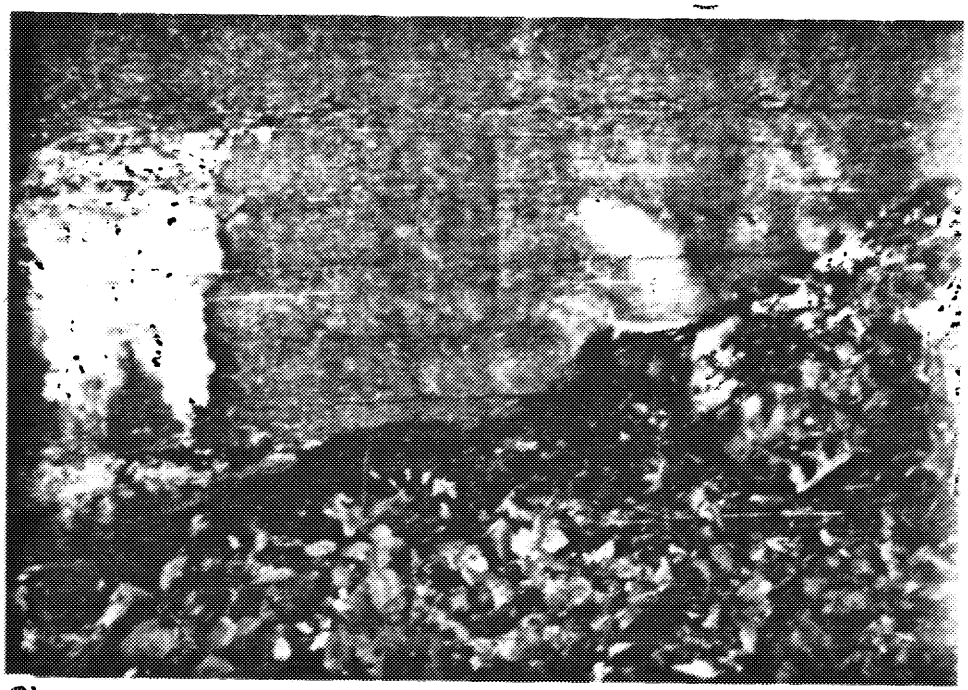


Photo 5- Seepage, efflorescence and cracking at downstream weir.

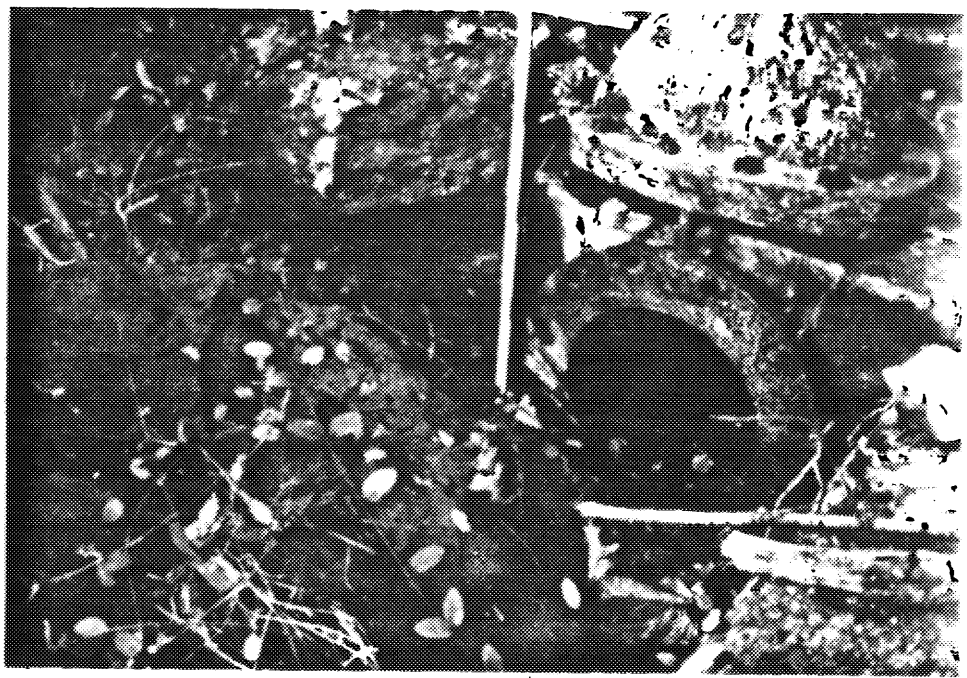


Photo 6 - 12" outlet valve below downstream weir. Note seepage to left of valve opening.

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Graniss Pond Dam TR-Farm River East Haven, Connecticut CE# 27660 KD DATE 9/18/79 PAGE C-3
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	INSPECTION OF NON-FED. DAMS	

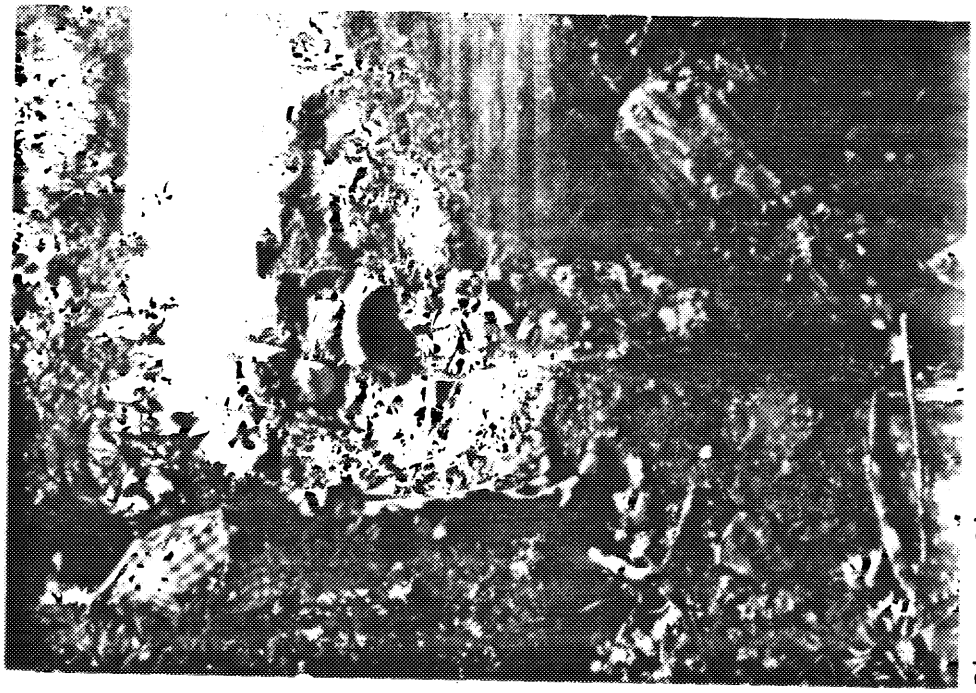


Photo 7 - Channel to 15" R.C.P under Graniss Street. Valve stem in foreground.

Photo 8 - 15" R.C.P. outlet and riprap at downstream side of Graniss Street.

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Graniss Pond Dam TR-Farm River East Haven, Connecticut CE# 27-660 KD DATE 9/18/79 PAGE C-4
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	INSPECTION OF NON-FED. DAMS	

Photo 9 - Stone wall at downstream side of Graniss Street.

Photo 10 - Ponded water and concrete retaining wall at downstream side of Graniss Street.

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Graniss Pond Dam TR - Farm River East Haven, Connecticut CE# 27 660 KD
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	INSPECTION OF NON-FED. DAMS	DATE 9/18/79 PAGE C-5

A-1

VISUAL INSPECTION CHECK LIST
PARTY ORGANIZATION

PROJECT Graniss Pond Dam

DATE: 9/18/79

TIME: 1:15 P.M. - 4:00 P.M

WEATHER: Sunny - warm - 75°F

W.S. ELEV. ____ U.S. ____ DN.S

PARTY:	INITIALS:	DISCIPLINE:
1. Jay Costello	J.C.	Cahn Engineers, Inc.
2. Peter M. Heynen	P.M.H	Cahn Engineers, Inc.
3. Miron Petrovsky	M.P.	Cahn Engineers Inc.
4. Bob Jahn	B.J.	Cahn Engineers, Inc.
5. Hector Moreno	H.M.	Cahn Engineers, Inc.
6.		

PROJECT FEATURE	INSPECTED BY	REMARKS
1. Dam Embankment	P.M.H, J.C., M.P., B.J., H.M.	
2. Spillway channel	P.M.H, J.C., M.P., H.M.	
3. Upstream weir	P.M.H, J.C., M.P, B.J.	
4. Downstream weir	P.M.H., J.C., M.P., B.J.	
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

PERIODIC INSPECTION CHECK LIST

PROJECT Graniss Pond Dam DATE 9/18/79

PROJECT FEATURE Dam Embankment BY P.M.H, J.C., M.P., H.M.

AREA EVALUATED		CONDITION
DAM EMBANKMENT		
Crest Elevation		203± C.E datum
Current Pool Elevation		202± top of valve stem = 200.00
Maximum Impoundment to Date		Unknown
Surface Cracks		none observed
Pavement Condition		N/A
Movement or Settlement of Crest		none observed
Lateral Movement		none observed
Vertical Alignment		good
Horizontal Alignment		
Condition at Abutment and at Concrete Structures		
Indications of Movement of Structural Items on Slopes		none
Trespassing on Slopes		some
Sloughing or Erosion of Slopes or Abutments		some erosion from trespassing
Rock Slope Protection-Riprap Failures		displacement and vegetation
Unusual Movement or Cracking at or Near Toes		none
Unusual Embankment or Downstream Seepage		seepage and ponded water below road. Also in vicinity of 6" runoff pipe.
Piping or Boils		
Foundation Drainage Features		N/A
Toe Drains		N/A
Instrumentation System		N/A

PERIODIC INSPECTION CHECK LIST

PROJECT Graniss Pond Dam DATE 9/18/79

PROJECT FEATURE Spillway weirs and Channel BY J.C., M.P., PMH

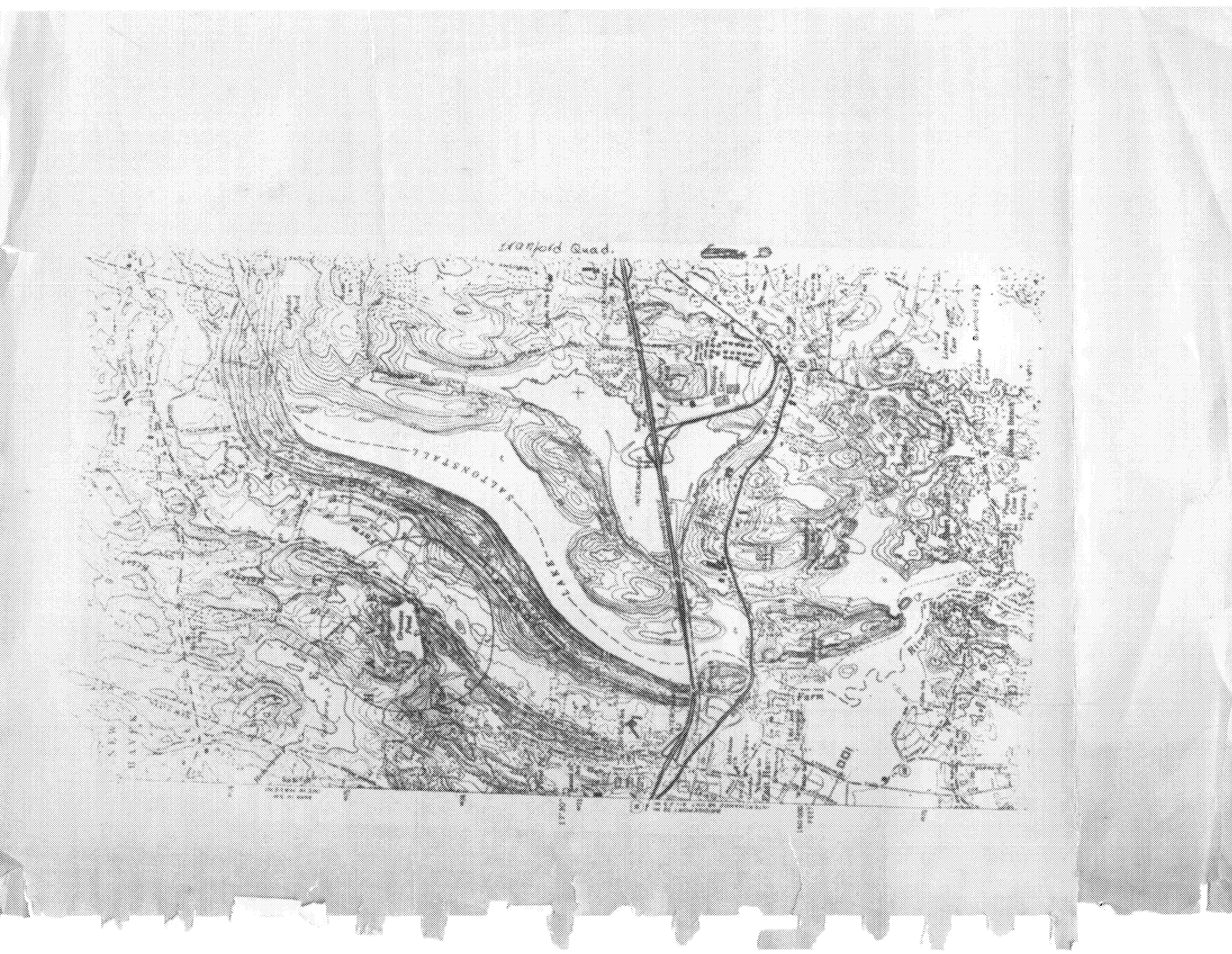
AREA EVALUATED	CONDITION
OUTLET WORKS-SPILLWAY WEIR, APPROACH AND DISCHARGE CHANNELS	u/s weir, channel, d/s weir
a) Approach Channel	
General Condition	poor - needs dredging
Loose Rock Overhanging Channel	none - right channel wall decay
Trees Overhanging Channel	none
Floor of Approach Channel	not observed
b) Weir and Training Walls	two weirs
General Condition of Concrete	u/s - very poor d/s - fair
Rust or Staining	none observed
Spalling	u/s - total collapse d/s - some
Any Visible Reinforcing	none
Any Seepage or Efflorescence	d/s - at base
Drain Holes	none observed
c) Discharge Channel	
General Condition	poor
Loose Rock Overhanging Channel	none
Trees Overhanging Channel	yes
Floor of Channel	debris in channel
Other Obstructions	N/A

PERIODIC INSPECTION CHECK LIST

PROJECT Granite Pond Dam DATE 9/18/79

PROJECT FEATURE _____ BY J.C, M.P., P.M.H.

AREA EVALUATED		CONDITION
OUTLET WORKS-OUTLET STRUCTURE AND OUTLET CHANNEL		12" low level valve d/s side d/s weir
General Condition of Concrete		poor
Rust or Staining		efflorescence
Spalling		some
Erosion or Cavitation		cracking
Visible Reinforcing		none observed
Any Seepage or Efflorescence		base of weir and at valve opening
Condition at Joints		N/A
Drain Holes		
Channel		
Loose Rock or Trees Overhanging Channel		some trees
Condition of Discharge Channel		rocks and debris in channel between weir and 15" R.C.P. R.C.P. empties to d/s slope road embankment. Some riprap.


Hatfield Quad.
SALTONSTALL
LANE